ATTACHMENT A

FACT SHEET
FOR

UPDATED WASTE DISCHARGE REQUIREMENTS AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR STORM WATER/URBAN RUNOFF DISCHARGES FROM EL DORADO COUNTY, PLACER COUNTY, AND THE CITY OF SOUTH LAKE TAHOE

ORDER NO. R6T-2011-0101
NPDES NO. CAG616001

Pursuant to the requirements of section 124.8 and 124.56 of title 40 the Code of Federal Regulations (CFR), this Fact Sheet briefly sets forth the principal facts and the significant factual, legal, methodological and policy questions considered in preparing the draft permit.

Background

In 1972, the federal Water Pollution Control Act (also referred to as the Clean Water Act [CWA]) was amended to provide that the discharge of pollutants to waters of the United States from any point source is unlawful unless the discharge is in compliance with a NPDES permit. The 1987 amendments to CWA added section 402(p), which established a framework for regulating storm water discharges under the NPDES Program. Subsequently, in 1990, the U.S. Environmental Protection Agency (U.S. EPA) promulgated regulations for permitting storm water discharges from industrial sites (including construction sites that disturb five acres or more) and from municipal separate storm sewer systems (MS4s) serving a population of 100,000 people or more. (40 C.F.R. 122.26.) These regulations, known as the Phase I regulations, require operators of medium and large MS4s to obtain storm water permits. On December 8, 1999, U.S. EPA promulgated regulations, known as Phase II, requiring permits for storm water discharges from Small MS4s and from construction sites disturbing between one and five acres of land. (40 C.F.R. 122.30 - 122.37.) The Phase I regulations provide that States, such as California, with approved NPDES programs, may require any discharger who contributes to a violation of water quality standards or is a significant contributor of pollutants to waters of the United States to obtain storm water permits regardless of population size. (40 C.F.R. 122.26(a)(v).)

Portions of El Dorado County and Placer County and the entire jurisdiction of the City of South Lake Tahoe (hereafter referred to as “municipalities” or “Permittees”) lie within the Lake Tahoe Hydrologic Unit. Because Lake Tahoe is an Outstanding National Resource Water negatively impacted by urban runoff

discharged from these municipalities, the Lahontan Regional Water Quality Control Board adopted Order 6-92-02 in January 1992 as part of the Phase I NPDES program to regulate MS4s on the California side of the Lake Tahoe watershed. The NPDES Stormwater Permit provided the Water Board a mechanism to work with the local municipalities to improve storm water management practices in the Tahoe area.

NPDES Storm water Permits expire five years following adoption, and Order 6-92-02 was belatedly updated in October 2000 by Order 6-00-82. The subsequent permit update, Order R6T-2005-0026, required the municipalities to develop comprehensive storm water management programs to further control runoff from construction, industrial, and residential properties, as well as enhance storm water facility inspection practices and extend public education and outreach programs.

In 2002 and 2009, United States Environmental Protection Agency (USEPA) contractors conducted audits of the City of South Lake Tahoe, El Dorado County, and Placer County municipal storm water management programs. These audits noted deficiencies in the permittees' implementation of requirements prescribed under NPDES permit CAG616001, including their construction components, industrial and commercial components, municipal operations, and illicit discharge detection and elimination components. This permit incorporates more specific, measurable requirements for these components of the Permittees' storm water management plans.

This permit update maintains the previous storm water management program requirements and adds pollutant load reduction and associated monitoring requirements to implement the Lake Tahoe Total Maximum Daily Load program.

Legal Authority

The CWA authorized the USEPA to permit a state to serve as the NPDES permitting authority in lieu of the USEPA. The State of California has in-lieu authority for the NPDES program. The Porter-Cologne Water Quality Control Act authorized the State Water Resources Control Board (State Board), through the Water Boards, to regulate and control the discharge of pollutants into waters of the State. The State Board entered into a Memorandum of Agreement with the USEPA on September 22, 1989 to administer the NPDES Program governing discharges to waters of the United States.

The terms of this permit implements the federal requirements under the CWA sections 402(p) and 303(d), and the associated regulations. The terms of this permit are no more stringent than those that could have been adopted in a permit issued by U.S. EPA itself.

Lake Tahoe Total Maximum Daily Load

Lake Tahoe is designated an Outstanding National Resource Water by the State Board and the USEPA due to its extraordinary deep water transparency. However, the lake's deep water transparency has been impaired over the past four decades by increased fine sediment particle inputs and stimulated algal growth caused by elevated nitrogen and phosphorus loading.

The Water Board, and the Nevada Division of Environmental Protection (NDEP) developed the bi-state Lake Tahoe Total Maximum Daily Load (TMDL) to identify the pollutants responsible for deep water transparency decline, quantify the major pollutant sources, assess the lake's assimilative capacity, and develop a plan to reduce pollutant loads and restore Lake Tahoe's deep water transparency, as measured by the Secchi depth, to the annual average levels recorded in 1967-1971.

The ongoing decline in Lake Tahoe's water quality is a result of light scatter from fine sediment particles (primarily particles less than 16 micrometers in diameter) and light absorption by phytoplankton. The addition of nitrogen and phosphorus to Lake Tahoe contributes to phytoplankton growth. Fine sediment particles are the most dominant pollutant contributing to the impairment of lake waters, accounting for roughly two thirds of the lake's impairment. Consequently, fine sediment particles, total nitrogen, and total phosphorus are the pollutants of concern at Lake Tahoe.

To achieve the transparency standard, estimated fine sediment particle, phosphorus, and nitrogen loads must be reduced by 65 percent, 35 percent, and 10 percent, respectively. Given the magnitude of the needed load reductions and the current available understanding of load reduction options, achieving the load reductions needed to meet the transparency standard is expected to take 65 years. A 20-year interim transparency goal, known as the Clarity Challenge, requires basinwide pollutant load reductions to be achieved within 15 years, followed by five years of monitoring to confirm that 24 meters of Secchi depth transparency has been reached. Implementation efforts must reduce basin-wide fine sediment particle, phosphorus, and nitrogen loads by 32 percent, 14 percent, and 4 percent, respectively, to achieve this goal.

The TMDL pollutant source analysis identified runoff from urban land uses as the primary source of fine sediment particle loading to Lake Tahoe, and the pollutant load allocations establish needed pollutant load reductions as a percent reduction from baseline pollutant load levels. The most significant and currently quantifiable load reduction opportunities are within the urban land uses. Because urbanized areas discharge the overwhelming bulk of the average annual fine sediment particle load reaching Lake Tahoe, much of the load reductions must be accomplished from this urban upland source. Even if it were feasible to completely eliminate the fine sediment particle load from the other three sources,

(forest upland, atmospheric deposition, and stream channel erosion), the transparency standard would never be met.

Consequently, the Lake Tahoe TMDL implementation plan emphasizes actions to reduce fine sediment particle and associated nutrient loading from urban storm water runoff. Due to the magnitude of both the pollutant source and related control opportunities, the Water Board has devoted time and resources to develop detailed tools and protocols to quantify, track, and account for pollutant loads associated with urban runoff.

This NPDES Stormwater Permit is an important implementation tool that holds the municipal jurisdictions on the California side of the Lake Tahoe Basin accountable for achieving water quality improvements required by the Lake Tahoe TMDL.

Baseline Load Estimates

The Lake Tahoe TMDL expresses waste load allocations for the urban upland source as percent reductions from a basin-wide baseline pollutant load. The basin-wide baseline pollutant load reflects conditions as of water year 2003/2004 (October 1, 2003 – September 30, 2004). To translate basin-wide waste load allocations for urban runoff into jurisdiction-specific waste load allocations for each of the municipalities, the Water Board required each of the municipalities to conduct a jurisdiction-scale baseline load analysis as the first step in the TMDL implementation process. To ensure comparability between the basin-wide baseline pollutant load estimates and the jurisdiction-scale baseline pollutant load estimates, municipalities have used a set of standardized baseline condition values consistent with those used to estimate the 2003/2004 basin-wide pollutant loads. Specifically, baseline pollutant load estimate calculations reflect infrastructure, land development conditions, and operations and maintenance practices that were in effect in October 2004. Table IV.B.1 of the permit identifies the baseline of each pollutant of concern for each jurisdiction and sets out the allowable load. Due to the differences in analyzing hydrology at basin-wide and jurisdiction-specific scales, different modeling tools were needed to estimate average annual baseline pollutant loads.

Lake Clarity Crediting Program

With funding from the United States Environmental Protection Agency, the Water Board undertook an assessment of water quality trading opportunities at Lake Tahoe. The project team, led by Environmental Incentives, LLC., determined that before any water quality trading could occur a standard unit of water quality benefit must be established. To meet this need the project team, working with various Lake Tahoe stakeholders, developed the Lake Clarity Crediting Program.

The Lake Clarity Crediting Program provides a system of tools and methods to allow urban jurisdictions to link projects, programs, and operations and maintenance activities to estimated pollutant load reductions. In addition to providing a consistent method to track compliance with TMDL pollutant load reduction requirements, the Lake Clarity Crediting Program provides specific technical guidance for calculating jurisdiction-scale baseline load estimates. The Lake Clarity Crediting Program makes use of cutting-edge numeric modeling tools and field inspection methods to estimate water quality benefits and link modeled estimates to actual on-the-ground conditions. This program, the first of its kind in the nation, provides a robust method to hold municipalities responsible for required water quality improvements and offers transparent protocols for demonstrating progress.

This NPDES Stormwater Permit requires the municipalities to use the Lake Clarity Crediting Program Handbook (Attachment D) to assess compliance with load reduction requirements specified in the Lake Tahoe TMDL (Attachment B).

Pollutant Load Reduction Plans

The Lake Tahoe TMDL requires Lake Tahoe basin municipalities to develop and implement comprehensive Pollutant Load Reduction Plans (PLRPs) describing how proposed operations and maintenance activities, capital improvements, facilities retrofit projects, ordinance enforcement, and other actions will meet required pollutant load reduction requirements. PLRPs provide the Permittees the opportunity to prioritize pollutant load reduction efforts and target sub-watersheds, or catchments that generate the highest annual average pollutant loads in a cost effective manner.

By necessity, the PLRPs are expected to provide only a general implementation plan that identifies specific catchments targeted for implementation and expected load reduction measures. The Permit requires the municipalities to estimate the anticipated cumulative water quality benefit over a five year period and support those estimates with representative modeling results. As implementation progresses, these estimates will be refined as the municipalities declare credits pursuant to the Lake Clarity Crediting Program. Over time, the Permittees will likely need to adjust their individual PLRPs to reflect updated information regarding implementation progress and load reduction estimate refinement.

This NPDES Stormwater Permit implements the requirement to develop and submit PLRPs consistent with Lake Tahoe TMDL requirements. While the PLRPs do not alter pollutant load reduction requirements or other performance standards, they do describe the municipalities' methods and plans to achieve compliance with pollutant load reduction requirements and associated mass- and particle-based effluent limits listed in Section IV.B of the Permit. Therefore the Water Board will review, and if the PLRPs are acceptable, approve the PLRPs.

Each Permittee's submitted PLRP needs to be approved by the Water Board in order for the Permittee to be in compliance with this Permit.

Section IV.A of the Monitoring and Reporting Program requires the Permittees to annually assess PLRP progress and, if necessary, propose changes. If a Permittee chooses to add or remove catchments from its PLRP or proposes to change its overall load reduction approach, the Water Board will review any proposed changes and, if changes are acceptable, approve revised PLRPs. Changes must be approved by the Water Board before they may be implemented.

Numeric Effluent Limits

The CWA provides that storm water permits for MS4 discharges shall contain controls to reduce the discharge of pollutants to the "maximum extent practicable" and such other provisions as the State determines appropriate for the control of such pollutants. (CWA 402(p)(3)(B)(iii).) Under this provision, the Water Board has the authority to include requirements for reducing pollutants in storm water discharges as necessary for compliance with water quality standards. (*Defenders of Wildlife v. Browner*, 191 F.3d 1159, 1166 (9th Cir. 1999).) In fact, the U.S. EPA has recommended that where MS4 discharges have the reasonable potential to cause or contribute to a water quality standard excursion, EPA recommends that where feasible, the permitting authority exercise its discretion to include numeric effluent limitations as necessary to meet water quality standards. ("Revisions to the November 22, 2002 Memorandum 'Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs'," November 12, 2010 (hereafter referred to as "US EPA 2010 Memorandum") at p. 2)) US EPA recognizes that numeric water quality based effluent limits can be set out as pollutant concentrations, pollutant loads or numeric parameters acting as surrogates for pollutants, such as storm water flow volume or percentage or amount of impervious cover. (US EPA 2010 Memorandum at p. 2.)

In 1980, the State Water Resources Control Board adopted numeric effluent limits for storm water discharges in the Lake Tahoe Basin. The Water Board included these limits for discharges to infiltration systems and discharges to surface waters in the Water Quality Control Plan for the Lahontan Region (Basin Plan), amended in 1995. The numeric effluent limits contained in the Basin Plan were included in previous iterations of the NPDES Stormwater Permit.

Where a State or EPA has established a TMDL for an impaired water that includes WLAs for storm water discharges, permits for MS4 discharges must contain effluent limits and conditions consistent with the requirements and assumptions of the WLAs in the TMDL. (40 CFR 122.44(d)(1)(vii)(B).) U.S. EPA recommends that WLAs for NPDES-regulated storm water discharges should be

disaggregated into specific categories, as was done for the Lake Tahoe TMDL. WLAs were established for four source categories – urban uplands, forest uplands, atmospheric deposition, and stream channel erosion. (US EPA Memorandum at p.5) This updated permit replaces the previously referenced concentration-based effluent limits for turbidity, total nitrogen, and total phosphorus with particle- and mass-based effluent limits for fine sediment particles, total nitrogen, and total phosphorus based on requirements in the Lake Tahoe TMDL. By defining water quality improvement requirements in terms average annual loading of the pollutants of concern, this updated permit is consistent with recent US EPA guidance and provides a direct link to the transparency impairment, the Lake Tahoe TMDL, and all associated research and monitoring findings. The new effluent limits are as stringent as the concentration-based limits the previous permit.

The updated permit removes previous concentration-based limits for oil and grease and total iron for municipal discharges. For oil and grease, the existing narrative receiving water standard that prohibits waters from containing oils, greases, or other materials in concentrations that result in a visible film or coating is more restrictive than the previous effluent limit, and the receiving waters in the Lake Tahoe Hydrologic Unit are in attainment with this standard. With respect to total iron, there is no evidence indicating that urban runoff is a source of iron, nor is there any reasonable potential for this constituent to cause or contribute to a violation of any water quality standard. As such, the deletion of the effluent limit for total iron is justified based on Clean Water Act 402(o)(2)(B), which allows for exceptions to anti-backsliding based on new information that was not available at the time of issuance of the previous permit that supports the change.

Storm Water Management Plans

To provide consistency with federal regulations (40 CFR 122.26(d)(2)(iv)) and address deficiencies noted by a United States Environmental Protection Agency audit of Order 6-00-82, the primary goal of the previous NPDES Stormwater permit (R6T-2005-0026) was to require the Permittees to develop comprehensive storm water management programs. The pervious permit required the jurisdictions to prepare and implement a Storm Water Management Plan to (1) continue erosion control and storm water treatment project implementation; (2) inspect and control runoff from construction, industrial, commercial, and residential sites; (3) develop a storm water education program for municipal staff and the public; (4) detect and eliminate illicit discharges; (5) provide for public participation; (6) assess program effectiveness; (6) inspect roadways and other municipal storm water facilities; (7) manage traction abrasive and deicing application and recovery; and (8) evaluate program funding needs and provide fiscal management plan.

The established Storm Water Management Plans continue to provide a programmatic framework for implementing storm water management activities,

and Section III.B of this updated permit requires the Permittees to revisit and update their existing Storm Water Management Plans.

Monitoring Requirements

The Lake Clarity Crediting Program relies on numeric modeling tools to provide estimates of average annual pollutant loading and of water quality benefit associated with various management strategies. A series of condition assessment methods have been developed to link on-the-ground field conditions to model input variables to determine whether actual treatment facility and roadway conditions are consistent with modeled assumptions. Monitoring and Reporting Section I.E requires Permittees to conduct condition assessments of all roadways and runoff treatment facilities consistent with established methods for all catchments registered under the Lake Clarity Crediting Program. By emphasizing field condition assessments, the Permit requires the Permittees to focus limited staff resources on gathering meaningful information to verify model estimate parameters. If field conditions are consistent with modeled variables, then it is more likely that actual pollutant loading is consistent with modeled pollutant load estimates.

Effective implementation and pollutant load reduction tracking will require a well-designed water quality monitoring program that can be applied with an adaptive management framework. The Lake Tahoe Regional Storm Water Monitoring Program (RSWMP) is expected to serve this purpose for urban storm water. In collaboration with Lake Tahoe basin stakeholders and agency representatives, the RSWMP has developed a series of goals and objectives to guide urban storm water monitoring. These goals and objectives are summarized in the Tahoe Basin Regional Stormwater Monitoring Program Conceptual Development Plan (March 2008) and further described in subsequent RSWMP development documents.

At the time of Permit renewal, the RSWMP is still under conceptual development and lacks a program director and a defined organizational structure. Initial estimates suggest full RSWMP implementation and management may cost more than one million dollars per year, which exceeds currently available monitoring resources. Given that it will take additional time and resource to realize full implementation of the detailed water quality monitoring program, this Permit focuses on initiating critical water quality monitoring elements to provide data to support future water adaptive management processes.

The Permit requires Permittees to gather data at a catchment scale to help assess whether modeled water quality improvements are being realized. The Permit also requires the Permittees to monitor the effectiveness of selected water quality improvement practices to inform model input parameters and improve treatment facility design and operations and maintenance efforts. These

monitoring requirements effectively move the larger RSWMP vision forward by focusing on the priority RSWMP goals.

Nondegradation Objective

On October 28, 1968, the State Water Resources Control Board adopted Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California," establishing a nondegradation policy for the protection of water quality. This policy, referred to in the Basin Plan as the Nondegradation Objective, requires continued maintenance of existing high quality waters.

Under the Nondegradation Objective, whenever the existing quality of water is better than that needed to protect all existing and probable future beneficial uses, the existing high quality shall be maintained until or unless it has been demonstrated to the State that any change in water quality will be consistent with the maximum benefit of the people of the State, and will not unreasonably affect present and probable future beneficial uses of such water. Therefore, unless these conditions are met, background water quality concentrations (the concentrations of substances in natural waters as they existed in 1968, when the degradation policy was adopted, that are unaffected by waste management practices or contamination incidents) are appropriate water quality goals to be maintained. In accordance with 40 CFR 131.12(a)(3), no permanent or long term reduction in water quality is allowed in areas, like Lake Tahoe, that have been given special protection as Outstanding National Resource Waters.

Storm water discharges from the municipal jurisdictions are contributing to the degradation of Lake Tahoe, which violates the above-referenced objective, as documented by the Lake Tahoe TMDL. This updated NPDES Storm Water Permit is intended to improve storm water quality and reduce the negative impacts associated with urban runoff.

Public Participation

This proposed Municipal NPDES Permit has been developed for review and comment by the public. As a step in the Water Board approval process, the Lahontan Water Board staff developed a "tentative" Permit for circulation and will distribute a "proposed" Permit for a 30-day review and comment period. The Lahontan Water Board encourages public participation in the Permit adoption process.

Notification of Interested Parties

On August 10, 2011 the Lahontan Water Board notified dischargers, interested agencies, and other interested parties of its intent to update the Municipal NPDES Permit for storm water discharges from the City of South Lake Tahoe and portions of El Dorado and Placer Counties within the Lake Tahoe Hydrologic

Unit. The Water Board provided interested parties with the opportunity to submit written comments and recommendations on the draft tentative permit by September 15, 2011. Notification was provided through mailing, list serve system emails, and posting on the Lahontan Water Board website. Lahontan Water Board staff revised the permit based on comments received on the tentative draft, and on October 31, 2011 the Lahontan Water Board notified dischargers, interested agencies, and other interested parties that a draft proposed permit was available for public review. Notification was provided through mailing, list serve system emails, newspaper notifications, and posting on the Lahontan Water Board website.

Written Comments

The staff determinations are proposed. Interested persons are invited to submit written comments concerning this proposed Permit. Written comments must be submitted either in person, by email, or by U.S. mail to the Lahontan Water Board. The mailing address for the Lahontan Water Board is 2501 Lake Tahoe Blvd, South Lake Tahoe, CA 96150. Email comments may be submitted to the attention of Robert Larsen at RLarsen@waterboards.ca.gov.

To be fully considered by staff and the Lahontan Water Board, written comments must be received at the Lahontan Water Board within ten days of the Public Hearing to consider adopting the updated permit. Comments received after that date will be forwarded on to the Lahontan Water Board.

Public Workshop

The Lahontan Water Board conducted a public workshop on September 14, 2011 to discuss issues relating to the tentative Permit with the Board and interested parties.

Public Hearing

The Lahontan Water Board has scheduled a public hearing to consider adopting the updated permit. The Board meeting is scheduled as follows:

Date:	December 6, 2011
Time:	To be determined
Location:	Embassy Suites Hotel 4130 Lake Tahoe Blvd South Lake Tahoe, CA 96150

Interested persons are invited to attend. At the public meeting, the Lahontan Water Board will hear testimony, if any, pertinent to the discharge and the Permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. The public can access the current agenda for changes in dates and locations at the Water Board website: www.waterboards.ca.gov/lahontan

Petitions

Any aggrieved person may petition the State Water Resources Control Board to review the decision of the Lahontan Water Board regarding the final Permit. The petition must be submitted within 30 days of the Lahontan Water Board's action to the following address:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

Information and Copying

The tentative Permit, comments received, and other information are on file and may be inspected at the Lahontan Water Board at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday, at 2501 Lake Tahoe Boulevard, South Lake Tahoe, CA 96150. Copying of documents may be arranged through the Lahontan Water Board by calling (530) 542-5400.

Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Lahontan Water Board, reference this Permit, and provide a name, address, and phone number.

Additional Information

Requests for additional information or questions regarding this order should be directed to Robert Larsen, Environmental Scientist, at 530-542-5439 or by email at RLarsen@waterboards.ca.gov.